

Notice of a Skeleton of the Great Auk found in Guano near Newfoundland. By Dr. J. E. GRAY, F.R.S., &c.

An almost perfect specimen of the Great Auk (*Alca impennis*), in a "mummy state," has been found on an island to the northward of Newfoundland, several feet below the surface of a deposit of frozen guano.

With the exception of the extremities of the toes, this example is perfect in every respect. Even the pen-feathers are on the wings. The beak is as perfect as on the day the bird died.

The specimen is on its way to the Zoological Department of the British Museum, to which it has been presented by its discoverer. I believe this is the third skeleton of this bird in European collections: there is one in Paris, and another in the possession of Mr. Alfred Newton, which was found also in guano.

Second Note on the Anatomy and Histology of Branchiostoma lubricum, Costa (Amphioxus lanceolatus, Yarrel). By M. J. MARCUSEN*.

MUSCULAR SYSTEM.

All observers before M. Quatrefages, and M. Quatrefages himself, agreed that the lateral muscles of the Lancelet have fibres with transverse striæ, and this I have been able to confirm; but with regard to the abdominal muscles, Müller was the first to indicate the singular fact that they have not striated fibres. M. Quatrefages also had not seen them, but it seemed to him that these muscles presented striæ during their contraction. In the muscles of the cirri of the buccal apparatus, and indeed of the entire ring, neither Müller nor Quatrefages saw the least trace of striæ. Quatrefages remarked that the abdominal muscles presented a singular exception, as in the entire vertebrate series they are under the influence of the will, and in all other forms present striæ. I find that this exception has no existence. The abdominal muscles of the Lancelet are composed of primitive fibres with transverse striæ; and the muscles of the cirri, of the buccal ring, and of the fold which separates the mouth from the branchial cavity are also muscles with transversely striated fibres. The primitive fibres of these muscles are very delicate, which may perhaps prevent the striæ from being seen unless the animal be dissected, especially as, at this point, they have rather the character of tendons. Müller thought he saw muscles in the midst of the branchial arches; but I have been unable to find them.

CONJUNCTIVE TISSUE.

This is completely transparent and nearly gelatinous, or it presents the form of a fibrous tissue in which many elastic fibres are found; the latter may be either long or short. The long fibres are met with chiefly in the fin; the short ones, which are recurved at

* See 'Annals,' August 1864, p. 151.

the two extremities, occur principally in the conjunctive tissue which covers the branchial cavity.

VASCULAR SYSTEM.

Besides the large vessels so well described by Müller, there is a well-developed capillary system throughout the body. The capillaries are met with in the central nervous system and in the muscles; but it is especially at the anterior and posterior extremities of the body, and in the delicate membrane which surrounds the body (*i. e.* the fins), that they are most developed. These capillaries are very delicate, transparent, and without nuclei in their walls; they are seen with difficulty when the body is covered with epithelium. In the fins they assume a longitudinal direction, and show many sinuosities and anastomoses. From the head to the tail they form around the central nervous system and dorsal cord a series of longer or shorter loops. They are met with in the interstices of the bundles of the lateral muscles. Quatrefages thought he saw a movement of blood in lacunæ; but these lacunæ are capillaries with walls: they are also found in the parts regarded by Müller as the fin-rays, and by Quatrefages as spinous apophyses, and it is in the opaque body which these enclose that they are to be seen with the elastic fibres and bodies of the conjunctive tissue. These capillaries are often filled with small, round, regular, slightly granulated bodies $\frac{1}{250}$ th millim. or less in diameter, and apparently destitute of a nucleus: these are the blood-corpuscles of the *Branchiostoma*. I do not think that they are visible in the living animal; neither Müller, nor Quatrefages, nor myself was able to see them therein. I found them in specimens preserved in a solution of chromic acid. In any case, the vascular system of the Lancelet is more complete than has hitherto been supposed; and the blood, with its corpuscles, is distributed through it, as in other Vertebrata, in walled vessels, and not in lacunæ.

EPITHELIUM.

In the cells of the epithelium I could discover no nuclei. This was the case also with Quatrefages.—*Comptes Rendus*, July 11, 1864.

Note on the Great Auk. By Dr. P. L. SCLATER, M.A., Sec. Z.S.

With reference to the list by Mr. Champley, in a recent Number of the 'Annals,' of the existing specimens of the skins and eggs of the Great Auk (*Alca impennis*), my friend Dr. G. Hartlaub, of Bremen, remarks to me, in a letter recently received, that it seems to be very incomplete. Dr. Hartlaub states that there is a very beautiful specimen of this bird in the Bremen Museum, also one at Leyden,—neither of which appear to be alluded to by Mr. Champley.

The Oldenburg collection is also in possession of one of the finest existing eggs of the Bird, which was acquired at the sale of the collection of the late Dr. Graba, of Kiel, for little more than a thaler!